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UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,113	12/12/2003	Ramesh G. Illikkal	42P17961	1906

7590   06/28/2006

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EXAMINER
GU, SHAWN X

ART UNIT	PAPER NUMBER
2189	

DATE MAILED: 06/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

<table>
<tr><td rowspan="2">Advisory Action
Before the Filing of an Appeal Brief</td><td>Application No.
10/735,113</td><td>Applicant(s)
ILLIKKAL ET AL.</td><td></td></tr>
<tr><td>Examiner
Shawn Gu</td><td>Art Unit
2189</td><td></td></tr>
</table>

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED <u>13 June 2006</u> FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

   a) ☐ The period for reply expires _____months from the mailing date of the final rejection.

   b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

      Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

<u>NOTICE OF APPEAL</u>

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

<u>AMENDMENTS</u>

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will <u>not</u> be entered because

   (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);

   (b) ☐ They raise the issue of new matter (see NOTE below);

   (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

   (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

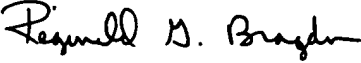   NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5. ☐ Applicant's reply has overcome the following rejection(s): _____.

6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

   The status of the claim(s) is (or will be) as follows:

   Claim(s) allowed: _____.

   Claim(s) objected to: _____.

   Claim(s) rejected: _____.

   Claim(s) withdrawn from consideration: _____.

<u>AFFIDAVIT OR OTHER EVIDENCE</u>

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will <u>not</u> be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will <u>not</u> be entered because the affidavit or other evidence failed to overcome <u>all</u> rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

<u>REQUEST FOR RECONSIDERATION/OTHER</u>

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: <u>See Continuation Sheet.</u>

12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). _____

13. ☐ Other: _____.

REGINALD G. BRAGDON
EXAMINER

U.S. Patent and Trademark Office
PTOL-303 (Rev. 7-05)   Advisory Action Before the Filing of an Appeal Brief   Part of Paper No. 20060623

Continuation of 11. does NOT place the application in condition for allowance because: Contrary to the Applican't argument that Sano does not diclose assigning processors 12 to descriptors 102, the Examiner believes that Sano teaches this feature by disclosing that the processors 12 search the descriptor ring (see Fig. 6, and Col. 13, Ln. 43-58) to find packets to process (see Col. 14, Ln. 60-67). Sano's DMA circuitry 16 only generates write commands to the memory controller 14 to write received packets to the memory 24 and generates read commands to read packets from the memory 24 for transmission (see Col. 3, Ln. 33-40), however it is the processors 12 that perform the actual processing of the packets. Sano further teaches that the descriptors are created by software to store packets (see Col. 13, Ln. 65-67). Therefore Sano clearly teaches a multi-processor system wherein the processors search the descriptor ring for packets to process (hence "assigning processors to descriptors"). This disclosure of Sano clearly presents a motivation for an algorithm to determine which processors will process which packets/descriptors. More generally, the question Sano presents is how to place a consecutively ordered group of data (descriptors in descriptor ring) among multiple possible positions (processors 12). One such well-known algorithm in the art is interleaving, which is a way to arrange data in a noncontiguous way in order to increase performance. Patterson teaches an example of interleaving data among multiple location (memory banks) by assigning consecutive physical memory addresses alternately among multiple banks to increase the effective transfer rate and other performance factors. Therefore it would have been obvious to one ordinarilly skilled in the art at the time of the Applicant's invention to use the well-known method of interleaving taught by Patterson to determine which processor will process which packet (assigning processors to packets) in order to improve performance in Sano's multi-processor packet processing system.

The Examiner agrees with the Applicant's remarks regarding claims 16, 17, 19 and 20, and withdraws the rejection under 35 U.S.C. 112(1).

The Applicant's most recently submitted claims contain either printing or scanning errors. A corrected copy is required.